

ABSTRACT OF THE DISCLOSURE

A brushless motor 1 comprises a rotor 3 having a magnet 2 and a stator 4 having a stator core 8. The stator core 8 has teeth 11 provided at the front ends thereof with auxiliary grooves to realize a pseudo-multi-slot arrangement. The magnet 2 has an axial length of L_M while the stator core 8 has an axial length of L_s , L_s being greater than L_M ($L_s > L_M$). The stator core 8 is provided at the opposite ends thereof with respective overhanging portions 15 that are not vis-à-vis the magnet 2. As a result, the magnetic flux is prevented from flowing into the stator core 8 through the axial end faces 8a thereof. In other words, the magnetic flux mostly flows into the stator core 8 through the front ends of the teeth. As a result, the pseudo-multi-slot effect produced by the auxiliary grooves is efficiently boosted to reduce cogging and other problems.